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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,751	02/22/2002	Brian C. Banister	LSI-004-CIP	8423
7590 09/13/2005				
JAQUEZ & ASSOCIATES 6265 Greenwich Drive SUITE 100D SAN DIEGO, CA 92122-5916			EXAMINER BURD, KEVIN MICHAEL	
			ART UNIT 2631	PAPER NUMBER

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/080,751

Applicant(s)

BANISTER, BRIAN C.

Examiner

Kevin M. Burd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on 3/8/2004 and 3/29/2004 are being considered by the examiner.

Drawings

2. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6-8, 11, 14-18, 20-23, 27, 28, 30, 31 and 35-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims comprise variables that are not defined in the claims. A definition of these

variables must be found in the claims to distinctly claim the subject matter which Applicant regards as his invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 9, 10, 12, 13, 24-26, 29 and 41-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Harrison et al (US 6,434,366).

Regarding claims 1-3, 19, 24, 25, 41 and 46, Harrison discloses a method of generating weighted transmit signals in a communication system. The system comprises a transmitter shown in figure 5 comprising a plurality of antennae. A weight computer 306 outputs an initial weight to the matched filters (column 8, lines 16-26) and these weights determine an initial impulse channel response between an antenna element and a receiver (column 4, lines 39-42). The algorithm of the weight computer is the inverse cost function. An initial value for these components must be set to process the signal to be transmitted. After transmitting information, the transceiver will receive a feedback signal from a receiver. The received signal will be input into the weight computer 306. The weight computer will adapt the weights as necessary (column 8,

lines 18-26) and sends these new weights to filters 304. New channel impulse response estimates are made according to these weights (column 7, lines 41-52) and newly weighted signals are transmitted to a receiver. The process of adapting the weights of the transmit antenna array will continue.

Regarding claim 4, the communication system is a CDMA communication system (column 1, lines 18-22).

Regarding claim 9, the channel impulse response is adjusted and according to the matrix shown in column 4, lines 38-67.

Regarding claim 10, the channel impulse response is determined by the feedback signal from the receiver.

Regarding claims 12 and 13, power is a component of the feedback signal (column 12, lines 8-16).

Regarding claims 26 and 29, a plurality of weights is generated by the weight computer 306 based on the feedback signal from the receiver.

Regarding claims 42-45, Harrison discloses an apparatus for generating weighted transmit signals in a communication system. The system comprises a transmitter shown in figure 5 comprising a plurality of antennae. A weight computer 306 outputs an initial weight to the matched filters (column 8, lines 16-26) and these weights determine an initial impulse channel response between an antenna element and a receiver (column 4, lines 39-42). The algorithm of the weight computer is the inverse cost function. An initial value for these components must be set to process the signal to be transmitted. After transmitting information, the transceiver will receive a feedback

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signal from a receiver. The received signal will be input into the weight computer 306. The weight computer will adapt the weights as necessary (column 8, lines 18-26) and sends these new weights to filters 304. New channel impulse response estimates are made according to these weights (column 7, lines 41-52) and newly weighted signals are transmitted to a receiver. The process of adapting the weights of the transmit antenna array will continue.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dybdal et al (US 5,781,845) discloses an adaptive transmitter shown in figure 3 which adapts the transmitter weights according to a feedback signal from a receiver.

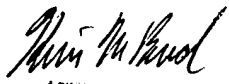
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Burd whose telephone number is (571) 272-3008. The examiner can normally be reached on Monday - Friday 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin M. Burd
9/8/2005


KEVIN BURD
PRIMARY EXAMINER